

EDEMA OF PEPEROMIA

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Peperomia obtusifolia A. Dietr. is a member of the pepper family, Piperaceae, and is grown as a potted ornamental foliage plant. The genus is made up of more than 500 species, native to regions of tropical America (2). As a foliar ornamental, it is prized for its rather thick, succulent leaves which vary in shape and variegation. *Peperomia* represents nearly a quarter of a million dollars of the annual 14 million dollar sales value of the foliage ornamental industry in Florida (3).

Cercospora has recently been determined to be a causal agent of edema of *Peperomia* (1). It has never been observed to produce fructifications on the edemic tissue which, however, readily yields *Cercospora* upon isolation. The fungus is present in the necrotic portions of the edemic leaf tissue as observed in histological sections. Both variegated and non-variegated varieties appear susceptible, though possibly in varying degrees.



Fig. 1. Edema of *Peperomia obtusifolia* (non-variegated) shown on the lower leaf surface.

SYMPTOMS. Edema, also referred to as "blister" and "scab," is characterized by small intumescences of tissue on the lower leaf surface. These swell progressively from tiny, hardly noticeable, pimplelike growths to prominently raised areas which appear dark green with a limited amount of brown necrotic tissue at the apex (Fig. 1). The intumescences attain a height of approximately 1 mm and are rarely more than 2 mm in diameter. They are especially prominent to the touch as one runs his fingers over the smooth lower surface of the leaves. Older, mature leaves appear more susceptible than younger leaves as noted in Figure 1. Moreover, severely affected leaves having many rather large intumescences develop a corresponding chlorotic spotting on the upper leaf surface rendering such plants largely unattractive and unsalable.

CONTROL. Though no specific disease control measures have been formulated, edema of *Peperomia* can probably be effectively controlled with preventive treatments using maneb, zineb, or Daconil, when applied according to the manufacturer's recommendations.

Literature Cited

1. Alfieri, S. A., Jr. 1968. Cercospora and edema of *Peperomia*. Proc. Florida State Hort. Soc. 81: (In press).
2. Bailey, L. H. 1966. Manual of cultivated plants. MacMillan Co., New York. 1116 p.
3. Nichols, C. A., G. N. Smith, and D. L. Brooke. 1959. A survey of the Florida foliage plant industry. Univ. Fla. Agr. Sta. Bull. 615. 30 p.